

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (currently amended)

A process for producing hollow bodies comprising fiber-reinforced ceramic materials, which comprises

in a first step, producing compressible cores whose shape corresponds essentially to the geometry of the hollow spaces to be formed, at least in the plane perpendicular to the pressing direction,

in a second step, producing a green body by introducing the abovementioned compressible cores and a press moulding composition comprising binder and fiber material into a mold,

in a third step, pressing the fiber-containing composition with a pressure of from 0.1 MPa to 50 MPa, with the core being compressed, at least in the pressing direction, by at least 5 % of its dimension in the pressing direction,

in a fourth step, curing the fiber-containing composition,

in a fifth step, carbonizing the cured green body, also referred to as intermediate body, by heating to a temperature of from about 750 °C to about 1100 °C in a nonoxidizing atmosphere to give a C/C body,

where the compressibility of the cores permits, ~~under the pressing conditions,~~ at a pressure of from 0.1 MPa to 50 MPa, a length change in the pressing direction of at least 5 % and the cores comprise material which, in the fifth step, pyrolyzes or is at least partially pyrolyzed with a reduction in volume.

2. (original)

The process as claimed in claim 1, wherein, subsequent to the fifth step,

in a sixth step, the C/C body is infiltrated with a liquid metal while retaining its shape, with at least partial reaction of the carbon in the matrix of the C/C body with the metal occurring to form carbides.

3. (original)

The process as claimed in claim 1, wherein

in the fourth step, the fiber-containing composition is cured by heating to a temperature of from 120 °C to 280 °C.

4. (original)

The process as claimed in claim 1, wherein the third and fourth steps are carried out simultaneously or partly overlapping in time.

5. (currently amended)

The process as claimed in claim 1, wherein multilayer cores comprising foamed polymers in ~~sandwich-like structures in which~~ are used wherein at least one of the upper or lower surfaces of the core is covered by a hard polymer which is infusible under curing conditions ~~are used~~.

6. (original)

The process as claimed in claim 1, wherein the press moulding compositions contain carbon fibers having a mean length of not more than 50 mm.

7. (original)

The process as claimed in claim 1, wherein the press moulding compositions contain bundles of carbon fibers having a mean length of less than 5 mm.

8. (original)

The process as claimed in claim 2, wherein the metal used for infiltration is silicon or a silicon alloy.

9. (original)

The process as claimed in claim 8, wherein the silicon alloy comprises a metal selected from among chromium, iron, nickel, cobalt, titanium and molybdenum.

10. (withdrawn)

A hollow body comprising fiber-reinforced ceramic material obtainable by the process of claim 1 in the form of an annular disc in which at least one hollow space extends from the periphery to the inner edge of the annular disc.

11. (withdrawn)

A method of use of a hollow body as claimed in claim 10 as brake or clutch disc comprising forming annular discs by press moulding of a carbon-fiber reinforced body, curing and carbonizing said body, and infiltrating the carbonized body with silicon or a silicon alloy under formation of the respective carbides.